

We claim:

- SUB A' >
1. A method of communicating digitized speech from a transmitting forum participant in a forum, said method comprising:
- 5 receiving a data structure that includes said digitized speech;
analyzing said data structure to determine whether said digitized speech is redundantly represented in a plurality of forms in said data structure; and
forwarding a portion of said data structure to a receiving forum participant, thereby communicating said digitized speech from said transmitting forum participant;
- 10 wherein, when said digitized speech is redundantly represented in said data structure in said plurality of forms:
said forwarding step includes a step of selecting one or more forms from said plurality of forms in said data structure based on an aspect of said forum; and
said portion of said data structure that is forwarded to said receiving forum
- 15 participant includes data in said data structure that corresponds to each of said selected one or more forms.
2. The method of claim 1, wherein each form in said plurality of forms is characterized by an operation of a different codec on a voice signal that corresponds to said digitized
- 20 speech from said transmitting forum participant.
3. The method of claim 1, wherein each form in said plurality of forms is characterized by a different amount of a characteristic, said characteristic selected from the group consisting of a coding method, a transmitted bandwidth, a bit rate, a form of bit rate, a level
- 25 of speech quality, an amount of error correction, a band signaling tone, a complexity, a frame size, an amount of delay, and a native sampling rate.
4. The method of claim 1, wherein said digitized speech is redundantly represented in said data structure in a first form and a second form,
- 30 said first form determined by an operation of a first codec on a voice signal corresponding to said digitized speech, and
said second form determined by an operation of a second codec on said voice signal corresponding to said digitized speech,
said first codec characterized by a first predetermined transmitted bandwidth, and
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said second codec characterized by a different second predetermined transmitted bandwidth.

5 5. The method of claim 4, wherein said first codec operates with a frame length of about 20 microseconds and said second codec operates with a frame length of about 36 milliseconds.

10 6. The method of claim 4, wherein said first codec operates with a frame length of about 20 microseconds and second codec operates with a frame length of about 30 milliseconds.

15 7. The method of claim 1, wherein said digitized speech is redundantly represented in said data structure in a first and second form, said first form characterized by an operation of a first codec on a voice signal corresponding to said digitized speech and said second form characterized by an operation of a second codec on said voice signal, wherein
said first codec operates with a first frame length and said second codec operates with a different second frame length,
said first form and said second form represented in said data structure in unequal durational amounts.

20 8. The method of claim 1, wherein said aspect of said forum is a status of said receiving forum participant, a number of nonpaying participants in said forum or a number of paying participants in said forum.

25 9. A method of communicating a voice signal from a participant in a forum, said method comprising:
selecting one or more codecs based on an aspect of a forum;
converting to compressed digital data, by operation of each said selected codec, an amount of said voice signal;
30 packaging said compressed digital data into a packet; and
transmitting said packet, thereby communicating said voice signal from said forum participant;
wherein, when more than one codec is selected, said compressed digital data includes redundant representations of said voice signal associated with said participant in
35 said forum.

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10. The method of claim 9,
said selecting step including a selection of a first and a second codec;
said converting step including:

5 a conversion of a first amount of said voice signal from said participant in
said forum to a first quanta of compressed digital data having a first degree of a
characteristic;

a conversion of a second amount of said voice signal from said participant in
said forum to a second quanta of compressed digital data having a second degree of said
characteristic; wherein

10 there exists an overlap between said first amount of said voice signal and said second
amount of said voice signal.

11. The method of claim 10, wherein said characteristic is selected from the group
consisting of, a coding method, a transmitted bandwidth, a bit rate, a form of bit rate, a level
15 of speech quality, an amount of error correction, a band signaling tone, a complexity, a
frame size, an amount of delay, and a native sampling rate.

12. The method of claim 9, wherein said aspect of said forum is a status of a participant
in said forum, a number of nonpaying participants in said forum or a number of paying
20 participants in said forum.

13. A computer product for use in conjunction with a computer system, the computer
program product comprising a computer readable storage medium and a computer program
mechanism embedded therein, the computer program mechanism comprising:

25 a receiving module for receiving a data structure that includes digitized speech from
a transmitting forum participant in a forum;

an analyzer module for analyzing said data structure to determine whether said
digitized speech in said data structure is redundantly represented in a plurality of forms;

30 a selection module for selecting one or more forms from said plurality of forms in
said data structure when said digitized speech is redundantly represented in said data
structure in said plurality of forms based on an aspect of said forum; and

a forwarding module for forwarding a portion of said data structure to a receiving
forum participant, thereby communicating said digitized speech from said transmitting
forum participant in said forum; wherein

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said portion of said data structure that is forwarded to said receiving forum participant by said forwarding module includes data in said data structure that corresponds to each of said one or more forms selected by said selection module when said digitized speech is redundantly represented in said data structure in said plurality of forms.

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14. The computer product of claim 13, wherein each form in said plurality of forms is characterized by an operation of a different codec on a voice signal that corresponds to said digitized speech from said transmitting forum participant.

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15. The computer product of claim 13, wherein each form in said plurality of forms is characterized by a different amount of a characteristic, said characteristic selected from the group consisting of a coding method, a transmitted bandwidth, a bit rate, a form of bit rate, a level of speech quality, an amount of error correction, a band signaling tone, a complexity, a frame size, an amount of delay, and a native sampling rate.

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16. The computer product of claim 13, wherein said digitized speech is redundantly represented in said data structure in a first form and a second form,

said first form determined by an operation of a first codec on a voice signal corresponding to said digitized speech;

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said second form determined by an operation of a second codec on said voice signal corresponding to said digitized speech;

said first codec characterized by a first predetermined transmitted bandwidth; and

said second codec characterized by a different second predetermined transmitted bandwidth.

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17. The computer product of claim 13, wherein said digitized speech is redundantly represented in said data structure in a first and second form, said first form characterized by an operation of a first codec on a voice signal corresponding to said digitized speech and said second form characterized by an operation of a second codec on said voice signal corresponding to said digitized speech, wherein

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said first codec operates with a first frame length and said second codec operates with a different second frame length,

said first form and said second form represented in said data structure in unequal durational amounts.

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18. The computer product of claim 13, wherein said aspect is a status of said receiving forum participant, a number of nonpaying participants in said forum or a number of paying participants in said forum.

5 19. A computer product for use in conjunction with a computer system, the computer program product comprising a computer readable storage medium and a computer program mechanism embedded therein, the computer program mechanism comprising:

a module for selecting one or more codecs based on an aspect of a forum;

a module for converting to compressed digital data, by operation of each said

10 selected codec, a voice signal associated with a participant in a forum;

a module for packaging said compressed digital data into a packet; and

a module for transmitting said packet, thereby communicating digitized speech from said participant in said forum;

wherein, when more than one codec is selected, said compressed digital data

15 includes a redundant representation of said voice signal associated with said participant in
said forum.

20. The computer product of claim 19 wherein said function selects a first and a second codec; and

20 said module for converting includes:

instructions to convert a first amount of said voice signal associated with said participant in said forum to a first quanta of compressed digital data having a first degree of a characteristic;

instructions to convert a second amount of said voice signal associated with
25 said participant in said forum to a second quanta of compressed digital data having a second
degree of said characteristic; wherein

there exists an overlap between said first amount of said voice signal and said second amount of said voice signal.

30 21. The computer product of claim 20, wherein said characteristic is a transmitted bandwidth, a bit rate, a form of bit rate, a level of speech quality, an amount of error correction, a band signaling tone, a complexity a frame size, an amount of delay, or a native sampling rate.

508A' 22. The computer product of claim 19, wherein said aspect is determined by one or more criteria selected from the group consisting of a status of a participant in said forum, a number of nonpaying participants in said forum, and a number of paying participants in said forum.

5 23. A computer readable memory used to direct a client/server system to function in a specified manner, comprising:

executable instructions stored in said memory, said executable instructions including:

10 instructions to receive a data structure that includes digitized speech from a transmitting forum participant in a forum;

instructions to analyze said data structure to determine whether said digitized speech in said data structure is redundantly represented in a plurality of forms;

instructions to select one or more forms from said plurality of forms in said data

15 structure when said digitized speech is redundantly represented in said data structure in said plurality of forms based on an aspect of said forum; and

instructions to forward a portion of said data structure to a receiving forum participant, thereby communicating said digitized speech from said transmitting forum participant in said forum; wherein

20 said portion of said data structure that is forwarded to said receiving forum participant by said instructions to forward includes data in said data structure that corresponds to each of said one or more forms selected by said instructions to select one or more forms when said digitized speech is redundantly represented in said data structure in said plurality of forms.

25 24. The computer readable memory of claim 23, wherein each form in said plurality of forms is characterized by an operation of a different codec on a voice signal that corresponds to said digitized speech from said transmitting forum participant.

30 25. The computer readable memory of claim 23, wherein each form in said plurality of forms is characterized by a different amount of a characteristic, said characteristic selected from the group consisting of a transmitted bandwidth, a bitrate, a form of bitrate, a level of speech quality, an amount of error correction, a band signaling tone, a complexity, a frame size, an amount of delay, and a native sampling rate.

26. The computer readable memory of claim 23, wherein said digitized speech is redundantly represented in said data structure in a first form and a second form.

said first form determined by an operation of a first codec on a voice signal corresponding to said digitized speech;

5 said second form determined by an operation of a second codec on said voice signal
corresponding to said digitized speech;

said first codec characterized by a first predetermined transmitted bandwidth; and

said second codec characterized by a different second predetermined transmitted bandwidth.

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27. The computer readable memory of claim 23, wherein said digitized speech is redundantly represented in said data structure in a first and second form, said first form characterized by an operation of a first codec on an voice signal corresponding to said digitized speech and said second form characterized by an operation of a second codec on said voice signal corresponding to said digitized speech, wherein;

said first codec operates with a first frame length and said second codec operates with a different second frame length; and

said first form and said second form represented in said data structure in unequal durational amounts.

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28. The computer readable memory of claim 23, wherein said aspect of said forum is a status of said receiving forum participant, a number of nonpaying participants in said forum, or a number of paying participants in said forum.

25 29. A computer readable memory used to direct a client/server system to function in a
specified manner, comprising:

executable instructions stored in said memory, said executable instructions including:

instructions to select one or more codecs based on an aspect of a forum;

30 instructions to convert to compressed digital data, by operation of each said selected
codec, a voice signal associated with a participant in said forum;

instructions to package said digital data into a packet; and

instructions to transmit said packet, thereby communicating digitized speech from said participant in said forum;

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wherein, when more than one codec is selected, said digital data includes a redundant representation of said voice signal associated with said participant in said forum.

30. The computer readable memory of claim 29 wherein
said instructions to select choose a first and a second codec; and
said instructions to convert to compressed digital data include:

instructions to convert a first amount of said voice signal associated with
said participant in said forum to a first quanta of compressed digital data having a first
degree of a characteristic;

instructions to convert a second amount of said voice signal associated with
said participant in said forum to a second quanta of compressed digital data having a second
degree of said characteristic; wherein

there exists an overlap between said first amount of said voice signal and said second
amount of said voice signal.

31. The computer readable memory of claim 29, wherein said characteristic is a
transmitted bandwidth, a bit rate, a form of bit rate, a level of speech quality, an amount of
error correction, a band signaling tone, a complexity, a frame size, an amount of delay, or a
native sampling rate.

32. The computer readable memory of claim 29, wherein said aspect of said forum is a
status of a participant in said forum, a number of nonpaying participants in said forum, or a
number of paying participants in said forum.